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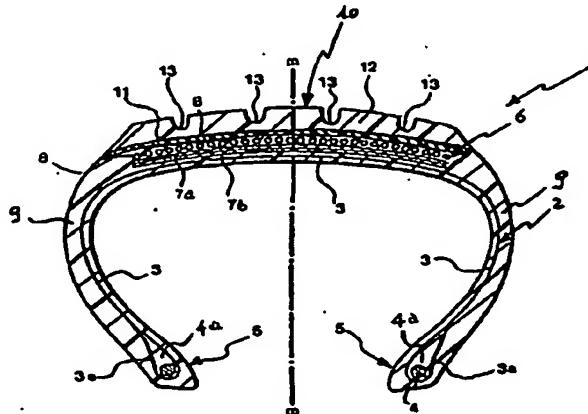
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(54) Title: TYRE FOR VEHICLE WHEELS WITH TREAD BAND OF CAP AND BASE CONSTRUCTION



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(57) **Abstract:** Tyre for vehicle wheels, comprising a carcass structure (2) with at least one carcass ply (3) shaped in a substantially toroidal configuration, the opposite lateral edges (3a) of which are associated with respective right-hand and left-hand bead wires (4), each bead wire being enclosed in a respective bead (5); a belt structure (6) comprising at least one belt strip (7a, 7b) applied in a circumferentially external position relative to said carcass structure (2); a tread band (10) superimposed circumferentially on said belt structure (6) comprising a radially outer layer (12) designed to come into contact with the ground and a radially inner layer (12) interposed between said radially outer layer and said belt structure (6); a pair of sidewalls (9) applied laterally on opposite sides relative to said carcass structure (2); in which said radially inner layer (11) includes a crosslinked elastomeric composition comprising: (a) at least one diene elastomeric polymer, (b) at least one layered inorganic material having an individual layer thickness of from 0.01 nm to 30 nm, preferably from 0.05 nm to 15 nm.